

## How to Interact with the Instructor

We encourage you to ask questions and share your comments with the instructors throughout this TELNPS course.

If you were physically in the classroom with the instructor, you would raise your hand to let him know you had a question or comment. Then you would wait for the instructor to recognize you and ask for your question. We are all familiar with that protocol for asking questions or making comments.

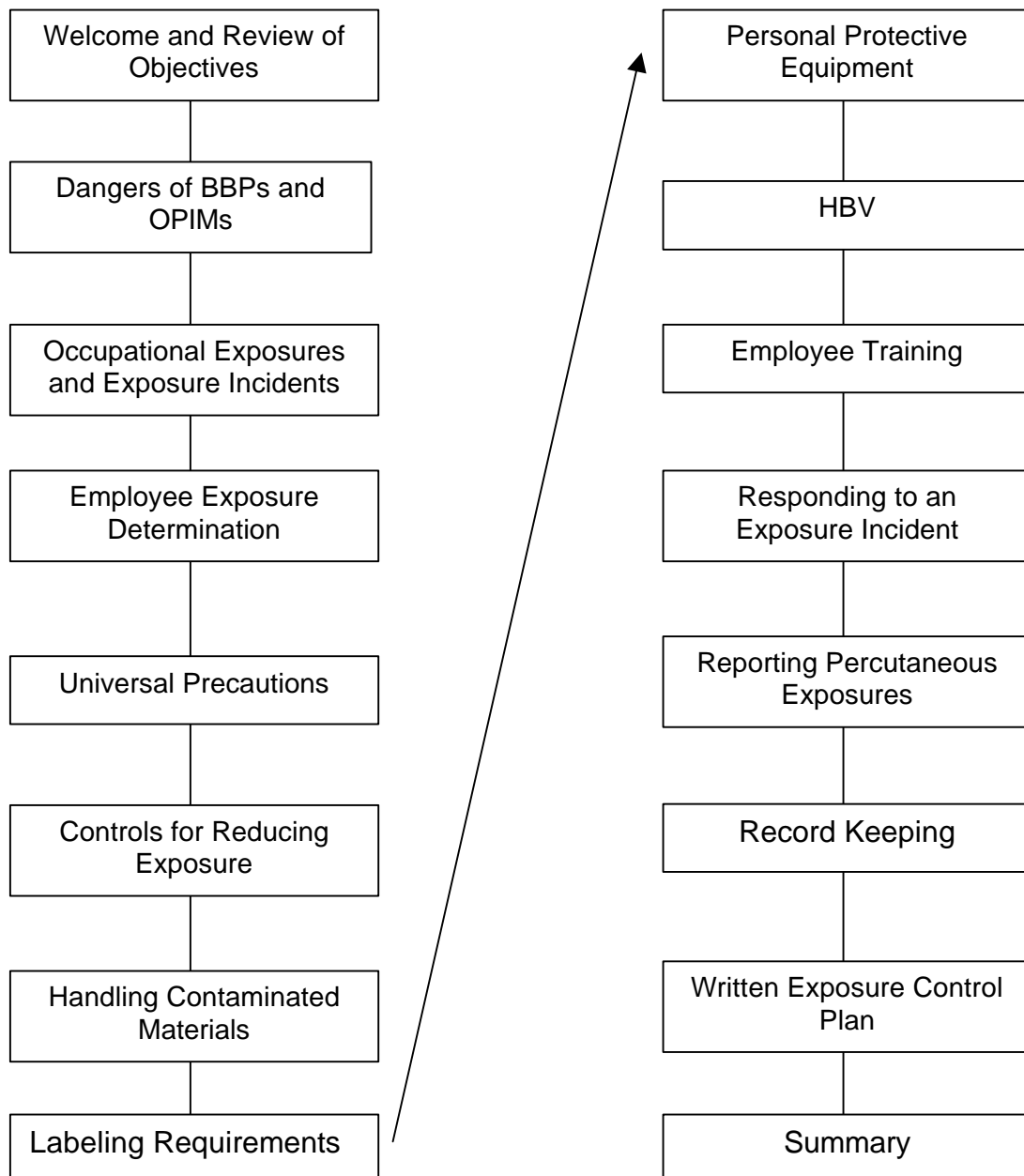
With TELNPS courses there is also a protocol to follow to ensure you can easily ask questions and others can participate as well. It may seem a little strange at first asking a question of a TV monitor. Remember, it is the instructor you are interacting with and not the monitor. As you ask more questions and participate in more TELNPS courses, you will soon be focusing only on the content of your question and not the equipment you are using to ask it.

As part of the TEL station equipment at your location, there are several push to talk microphones. Depending on the number of students at your location, you may have one directly in front of you or you may be sharing one with other students at your table.

*When you have a question, press the push to talk button and say,  
"Excuse me [instructor's first name], this is [your first name]  
at [your location]. I have a question (or I have a comment)."  
Then release the push to talk button. This is important.  
Until you release the button, you will not be able to hear the instructor.*

The instructor will acknowledge you and then ask for your question or comment. Stating your name and location not only helps the instructor, but also helps other students who are participating at different locations to get to know their classmates.

## Blood-Borne Pathogens: Breaking the Chain of Infection – Course Map



**Course Objectives****Notes**

At the conclusion of this course, you should be able to--

1. Define blood-borne pathogen (BBP), list the major BBPs that can be transmitted by an occupational exposure, and explain the role of blood and other potential infectious materials (OPIMs) as vehicles in transmitting pathogens.
2. Describe how to conduct an employee exposure determination, and identify which job classifications or tasks and procedures at your park could result in an occupational exposure.
3. Recognize an occupational exposure and an exposure incident.
4. Describe the universal precautions that should be taken to reduce the risk of exposure.
5. List the controls that should be taken to reduce the risk of occupational exposure.
6. Know the basic requirements for handling materials contaminated with blood or OPIM.
7. Know the labeling requirements for regulated waste or containers with OPIM.
8. Identify the personal protective equipment (PPE) used and how it is used.
9. Identify the requirements for HBV vaccination.
10. List the topics to be covered in required employee training sessions.
11. List the steps to take in the event of an exposure incident.
12. Know the reporting requirements for needle stick injuries and cuts from sharp objects.
13. Explain what is to be included in a written exposure control plan.
14. Know the record keeping requirements for medical records, training records, and the sharps injury logs.

**The Dangers of BBPs and OPIMs****Notes**

What is there in blood that makes us worried about being exposed to it?

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Important Definitions:

*Blood-borne Pathogens* are pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV), hepatitis C (HCV), and human immunodeficiency virus (HIV).

*Other Potentially Infectious Materials* (OPIM) are any of the following:

- The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids;
- Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and
- HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs or other tissues from experimental animals infected with HIV or HBV.

*Regulated Waste* is a liquid or semi-liquid blood or other potentially infectious material; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

**The Modes of Transmission:** Exposures occur when these infectious materials come in contact with a person's eye, mouth, other mucous membrane, or non-intact skin, or when parenteral contact is made with the blood.

Parenteral contact is \_\_\_\_\_.

**What Responsibilities Do Park Leadership and Supervisors Have?****Notes**

Brainstorm and list the responsibilities that you feel that park leadership and supervisors have to protect their employees from exposure to bloodborne pathogens.

Take 2 or 3 minutes, write down your responses and then be prepared to share those with others in the workshop.

**The Program Elements**

The Blood-Borne Pathogen Exposure Control Elements are

1. Employee Exposure Determination
2. Exposure Control Plan
3. Universal Precautions
4. Engineering Controls
5. Work Practice and Other Controls
6. Labeling
7. Personal Protective Equipment
8. Hepatitis B Vaccination
9. Post-Exposure Incident Follow-up
10. Reporting
11. Employee Training
12. Record Keeping
13. Waste Management

**Recognizing Occupational Exposures and Exposure Incidents****Notes**

An **occupational exposure** is a \_\_\_\_\_ contact with an infectious material that \_\_\_\_\_ result, whereas an **exposure incident** is a \_\_\_\_\_ in which contact \_\_\_\_\_ with an infectious material.

**Occupational Exposure or Exposure Incident?**

Discuss the three scenarios below at your site and label each scenario an *occupational exposure* and/or an *exposure incident*.

**Scenario One**

A park ranger breaks up a fight between two visitors and gets blood on his hands. He finds the blood has made contact with an abrasion he received from a recreational accident on his personal motorcycle the day before.

**Scenario Two**

A maintenance supervisor removes a used syringe from a garden area in an urban park and places it in a sharps container for disposal.

**Scenario Three**

A maintenance worker comes across a visitor sleeping for the night in a public area of the park. He wakes up the visitor, who swears and spits in the worker's face.

What if there is visible blood in the sputum?

What if there is not visible blood?

**How to Conduct an Employee Exposure Determination****Notes****Resource for Determining Occupational Exposure!**

<http://www.osha.gov/SLTC/bloodbornepathogens/compliance.html>

**You Make the Call!** Below are five scenarios involving controversial exposure groups. Take a minute to read through each scenario at your site and determine whether or not the tasks and procedures of that group involve an occupational exposure. Label each to the right under the Notes"column.

**Scenario One: Custodial Workers and Feminine Hygiene Products**

Custodians at your park have the daily duty of picking up and disposing of feminine hygiene products. Do these fall into the category of *regulated waste*, and does that task involve an occupational exposure?

**Scenario Two: Maintenance Plumbers**

Your park employs plumbers who perform repairs on pipes or drains in laboratories. Are they involved in occupational exposure?

**Scenario Three: First Aid Responders**

Your park has employees trained in first aid and designated responsible for rendering medical assistance as part of their job duties. As part of several tasks at the park, you can reasonably expect abrasion hazards, laceration hazards, electrical hazards, and a myriad of other accidents that could result in exposure to blood and saliva during first aid or CPR emergency assistance. Do these employees fall under the occupational exposure hazard?

What if no one has been designated as a first aid provider at the park? Is he or she considered under risk of occupational exposure?

**Scenario Five: Waste Management**

Employees responsible for solid waste management at the park have experienced a very low number of needle sticks in the past several years. Should they be considered as being involved in occupational exposure?

**Universal Precautions****Notes**

***Universal precautions*** is the concept of blood-borne disease control which requires that all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other blood-borne pathogens.

***Universal precautions*** include

1. Wearing \_\_\_\_\_ to touch patients' blood and body fluids, mucous membranes, or broken skin; to handle items or surfaces soiled with blood or body fluids; and to perform venipuncture and other vascular access procedures. Personnel will change gloves after contact with each patient. Personnel will wear masks and protective eyewear or face shields during procedures likely to generate blood droplets or other body fluids to prevent exposure to oral, nasal, or optic mucous membranes. Personnel will wear gowns or aprons during procedures likely to generate blood splashes or other body fluids.
2. If contaminated with blood or other body fluids, personnel immediately will \_\_\_\_\_ hands and other skin surfaces thoroughly. All persons shall wash their hands after completing activities likely to expose them to BBPs and remove protective clothing before leaving the work area.
3. All health care workers will take precautions to prevent \_\_\_\_\_ caused by needles, scalpels, and other sharp instruments or devices during procedures or when cleaning used instruments, disposing of used needles, and handling sharp instruments after procedures. To prevent needle stick injuries, personnel will not by hand directly recap needles, purposely bend or break them, remove them from disposable syringes, or otherwise manipulate them. After using disposable syringes and needles, scalpel blades, and other sharp items, personnel will dispose of them by placing them in puncture-resistant containers located as close to the use area as practical. Reusable needles will not be used.



4. Although research has not definitively implicated saliva in HIV transmission, it is prudent to use \_\_\_\_\_ , resuscitation bags, or other ventilation devices instead of mouth-to-mouth resuscitation. These devices must be available for use in areas where the need for resuscitation is predictable.
5. Health care workers who have exuding lesions or weeping dermatitis will not provide any direct patient care or handle patient care equipment until the condition resolves.
6. Eating, drinking, smoking, applying cosmetics or lip balm, and handling \_\_\_\_\_ are prohibited in work areas with a reasonable likelihood of occupational exposure to BBPs.
7. Personnel shall not keep food and drink in refrigerators, freezers, shelves, drug storage areas, or cabinets or on countertops or bench tops where \_\_\_\_\_ or other potentially infectious materials are present.
8. Personnel shall perform all procedures involving blood or other potentially infectious materials in a manner that prevents \_\_\_\_\_ of these substances from splashing, spraying, splattering, and generating.

**Controls for Reducing Exposure****Notes**

**Engineering Controls** “reduce employee exposure in the workplace by either removing or isolating the hazard or isolating the worker from the exposure. (List examples below.)

**Administrative Controls** are policies and procedures that an agency adopts in order to reduce employee exposure. (List examples below.)

**Work Practice Controls** change how a task is carried out. A supervisor can decrease potential exposure by requiring that employees perform tasks in certain ways. (List examples below.)

**Handling Contaminated Materials****Notes**

***Contaminated materials*** can include but are not limited to:

- used needles
- soiled scalpels
- disposable resuscitators
- intubation equipment
- used bandages
- disposed personal protective equipment
- other potentially infectious materials.

***Contaminated materials*** must be discarded in containers that are:

- Closeable
- Puncture-resistant, if discarded materials have the potential to penetrate the container
- Leak-proof, if the potential for fluid spill or leakage exists
- Red in color or labeled with the appropriate biohazard warning label
- *As close as possible to the source of the waste.*

**Yes or No?** Materials containing small amounts of blood, saliva, or other secretions such as tainted gauze pads, sanitary napkins, or facial tissues are considered infectious waste.

**How Do I Clean and Decontaminate Equipment and Spills of Blood or Other Body Fluids?**

1. Wear gloves, protective eyewear and gown or apron to prevent contact in case of splashing.
2. Remove visible material with disposable towels or other appropriate means that prevent direct contact with blood.
3. Decontaminate the area using EPA-approved germicide or recommended surface disinfectant agent.
4. Clean and decontaminate soiled cleaning equipment or put it in an appropriate container and dispose of it according to clinic policy.
5. Remove contaminated items from the spill site using plastic bags clearly labeled as containing infectious waste.
6. Remove gloves and other PPE; then wash hands.
7. All blood-contaminated cleaning supplies/materials must be placed in a red bag, properly labeled and packaged for disposal.
8. Report all incidents immediately to supervisor.

OSHA's Blood-Borne Pathogen Standard requires a written \_\_\_\_\_ schedule.

**Potentially Contaminated Laundry and Trash?**

- Why would you pick up the bag from the top instead of placing your hands on the bottom or sides of the bag?

**Labeling Requirements**

How must all containers of regulated waste or any container used to transport or store blood or other infectious material be labeled? List two possible ways.

**Personal Protective Equipment****Notes****A PPE T/F Quiz:**

- \_\_\_ 1. The employee must pay for PPE.
- \_\_\_ 2. Work areas and emergency response vehicles must be equipped with the appropriate PPE.
- \_\_\_ 3. It is the supervisor's responsibility to inspect and repair PPE.
- \_\_\_ 4. All potentially contaminated personal protective equipment is to be removed after leaving a work area or accident/incident site, if possible.
- \_\_\_ 5. Employees must receive training to use PPE, and that is the supervisor's responsibility.

**Can You Name Five** of the pieces of Personal Protective Equipment used to reduce the risk of exposure to BBPs and OPIMs?

- 1.
- 2.
- 3.
- 4.
- 5.

**HBV Vaccinations****Notes****FAQ's**

- Who Gets It?
- Within How Many Days of Assignment?
- What's the Charge?
- Who Can Give It?
- What Does Employee Fill Out if He or She Doesn't Want It?

**Employee Training****Notes****The Employee Training “Musts” are:**Who requires training?

All employees with the potential for occupational exposure to blood-borne pathogens must participate in a blood-borne pathogens training program.

When will the training happen?

Initial training will be provided at the time of assignment. Annual refresher training will be provided for as long as occupational exposure potential exists.

What will the training be about?

The training at a minimum must include the following:

- tasks which may cause exposure to blood or other potentially infectious material;
- the park's Blood-borne Pathogen Plan and how to access the plan;
- biohazard warning labels and their use;
- personnel protective equipment;
- emergency actions to be taken during an exposure incident;
- universal precautions;
- the park's vaccination program;
- post-exposure evaluation and follow-up;
- regulated waste disposal procedures.

Who will do the training and what will he or she provide?

Training will be conducted by persons knowledgeable in the subject matter, will provide an opportunity for interactive questions and answers, and will include the following:

- a copy of 29 CFR 1910.1030
- epidemiology and symptoms of blood-borne diseases
- methods of transmission
- an explanation of the Park's Exposure Control Plan and how to obtain a copy
- recognition of tasks which present an exposure risk
- use, selection, and limitations of protective measures
- information and Hepatitis B vaccine
- appropriate emergency actions.
- post exposure incident procedures, medical examination, and follow-up
- signs and labels

**Responding to An Exposure Incident****Notes****Step by Step:**Employee Responsibilities

1. Initiate appropriate cleaning and/or first aid at exposure site;
2. Identify the source of exposure;
3. Report incident to immediate supervisor.

Park Responsibilities

1. The Park must make immediately available to the employee a confidential medical examination and follow-up consultation.
2. Source Individual Testing: The park must identify and document the source individual if known, unless it can establish that identification is not feasible or is prohibited by state or local law. The source individual's blood must be tested as soon as feasible, after consent is obtained, in order to determine HIV and HBV infectivity. The information of the source individual's HIV and HBV testing must be provided to the evaluating health care professional. The results of the testing must be provided to the exposed employee. He or she must be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.
3. Counseling: The park must provide the health care provider with the following documents and information:
  - a copy of the standard;
  - a description of the employee's duties as they relate to the exposure incident;
  - documentation of the route(s) and circumstances of the exposure;
  - results of the source individual's blood testing if available;
  - all medical records relevant to the appropriate treatment of the employee, including vaccination status, which are the employer's responsibility to maintain.



4. Post-exposure prophylaxis (treatment) with **Hepatitis B Immune Globulin (HBIG)** (passive immunization) and/or vaccine (active immunization) should be used when indicated (e.g., after any park employee has a percutaneous (needle stick or cut from sharps) or mucous membrane exposure to blood (known or suspected) to be HbsAg-positive).
5. Needle stick or other percutaneous exposures of unvaccinated persons should lead to initiation of the **Hepatitis “B” vaccination series**. Post-exposure prophylaxis should be considered for any percutaneous, ocular (eye), or mucous membrane exposure to blood in the workplace and is determined by the HbsAg status of the source and the vaccination and vaccine-response status of the exposed park employee.
6. If the source of exposure is **HbsAg positive** and the exposed person is unvaccinated, HBIG should also be administered as soon as possible after exposure (within 24 hours) and the vaccine series started. The effectiveness of HBIG when administered >7 days after an exposure incident is unknown. If the exposed park employee had an adequate antibody response ( $\geq 10$  mIU/mL documented after the vaccination series through post-titer testing) no testing or treatment is needed, although administration of a booster dose of vaccine can be considered.
7. If the employee does not respond to the primary vaccine series (confirmed through **post-titer testing**), he or she should complete a second three-dose vaccine series or be evaluated to determine if she is HbsAg-positive. Re-vaccinated employees should be re-tested at the completion of the second vaccine series. Park employees who prove to be HbsAg-positive must be counseled by their physician.
8. HIV (AIDS) Testing: An exposed employee has the opportunity for future testing without the need for an immediate decision. Employees involved in an exposure incident have at least *90 days* following baseline blood collection to decide if they wish to have their blood tested for HIV. To the employee, HIV testing may present adverse ramifications, (e.g., confidentiality, employment, prejudice, or lack of medical information). Therefore, the 90-day time frame allows the potentially exposed employee the opportunity to participate in education, counseling, or further discussions involving the exposure incident. Employers are required to *preserve the blood* that the employee consented to have drawn, if it was not tested for HIV initially, for at least the *90-day period*.

**Reporting Requirements for Percutaneous Exposures****Notes**

***When there occurs any work-related needle stick injury or cut from sharp objects that are contaminated with another person's blood or OPIM, the park must record the incident.***

**To Report or Not to Report?** Checkmark each piece of information that should be included in the report of any percutaneous exposure incident (See 'Appendix H: Exposure Incident Reporting Requirements' for help):

- ☐ date and time of exposure
- ☐ procedural details
- ☐ where the exposure occurred
- ☐ how the exposure occurred
- ☐ type and brand of device
- ☐ price paid for device
- ☐ exposure details
- ☐ type and amount of fluid exposed to
- ☐ severity of exposure; for example, depth of injury or condition of skin
- ☐ description of source material
- ☐ description of source's therapy and condition if HIV-infected
- ☐ vaccination status of exposed person
- ☐ details about counseling, post-exposure management, follow-up
- ☐ exposed employee's name on the OSHA 300 Log
- ☐ update if case results in death, days away from work, restricted work, or job transfer
- ☐ update to identify infectious disease
- ☐ update of change in case classification from injury to illness

Are the 'OSHA 300 Log' and the 'Sharps Injury Log' separate reports?

The park is required to obtain a written opinion from the Health Care Facility concerning the exposure incident and provide that opinion to the employee within \_\_\_\_ working days of completion of the original evaluation.

**Record Keeping****Notes**

**If It's Not Recorded, It Didn't Happen** (fill in the blanks below):

**Medical Records**

Medical record will include: training records, liability declinations, immunization records, and exposure records including exposure evaluations. Medical records will be made available for employee review during normal work hours. Disclosure of this information without the employee's written consent by the Personnel Department is a violation of the Privacy Act. All employee records must be secured at all times and labeled "Confidential". Medical records will be kept for the duration of employment plus \_\_\_\_ years.

**Training Records**

Training records will include the employee's name and job title, topics covered, date, and the name and qualifications of the trainer. Training records must be maintained for a period of \_\_\_\_ years from the date the training occurred.

**Sharps Injury Log**

The Sharps Injury Log will be maintained for \_\_\_\_ years beyond the end of the calendar year reported by the log.

**The Written Exposure Control Plan****Notes**

See Appendix B for the Sample Written Exposure Control Plan.”

**Review the plan** and make a note of any questions you have about

- (1) the contents of each section, and
- (2) where you can go to get that information relating to your specific park.

**Write Your Plan.**

Now you should feel prepared to write your park's Exposure Control Plan. If you would like an electronic copy of the MS Word document used to create the sample plan, send an email to [david\\_p\\_bleicher@partner.nps.gov](mailto:david_p_bleicher@partner.nps.gov). Please make the subject line, Request for BBP MS Word File”

Complete your written plan by \_\_\_\_\_ (date) and send it to

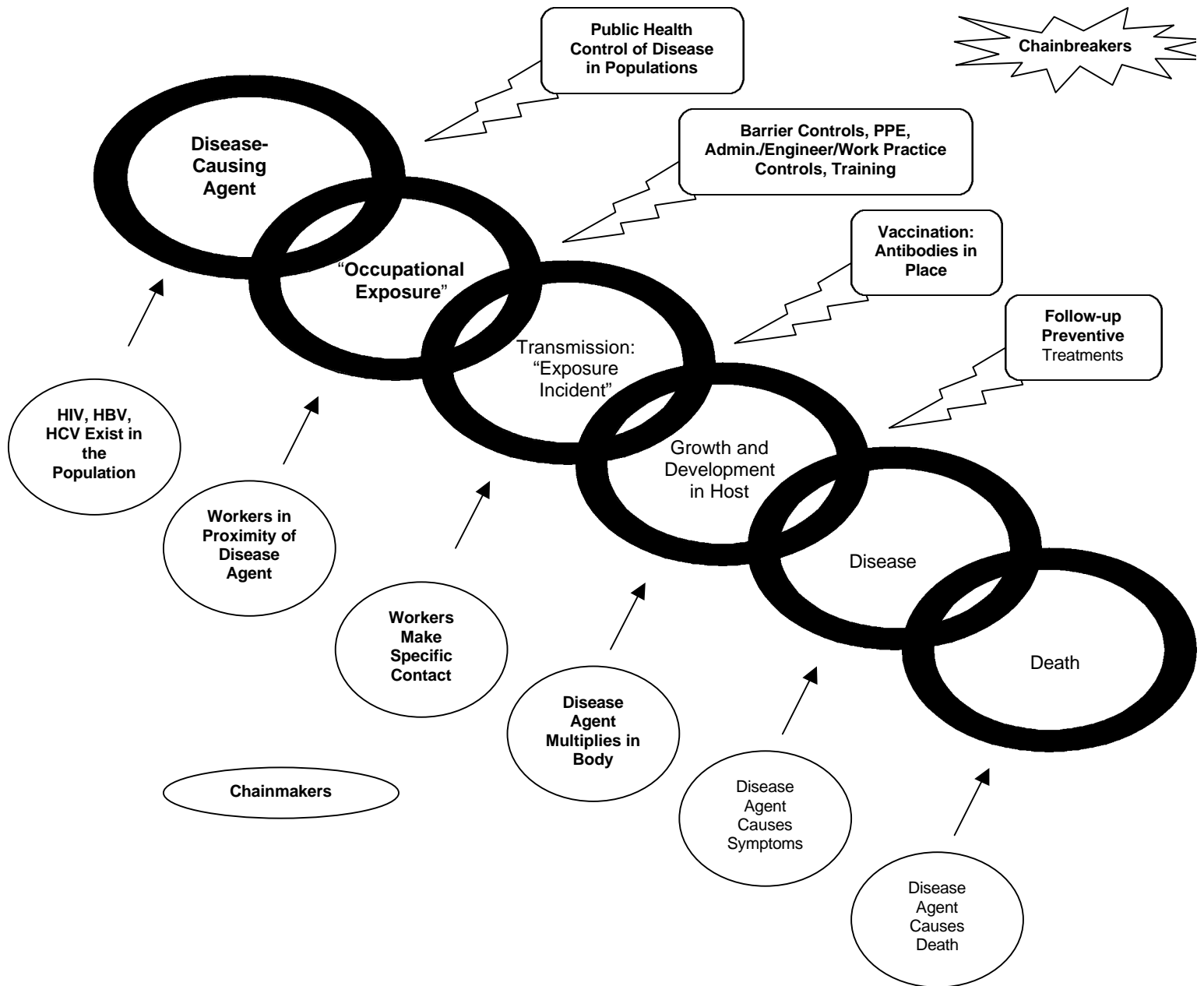
[david\\_p\\_bleicher@partner.nps.gov](mailto:david_p_bleicher@partner.nps.gov)

What should supervisors **oversee regularly** to ensure that the park's Exposure Control Plan remains as effective and responsive as it can be?

**Summary****Notes****Where do we go from here?**

Take a look at the objectives we said we would cover at the beginning of the course (page 3). Make a note of

1. Any objectives you are still unclear about.
2. Any items you want to take action on in order to put what you've learned into effect.

**Appendix A: Breaking the Chain of Disease**

**Appendix B: Sample Written Blood-borne Pathogens Exposure Control Program**

**Caution:** Although such general guidance may be helpful, you must remember that the written program must reflect the conditions at your workplace. Therefore, if you use a generic program it must be adapted to address the facility it covers. For example, the written plan must indicate who is to be responsible for the various aspects of the program at your park, define job classifications for which exposures are possible, and provide park-specific exposure response procedures.

**Blood-borne Pathogens Exposure Control Plan  
Your Park****Policy**

Your National Park is committed to providing a safe and healthful work environment for our entire staff. In pursuit of this endeavor, the following bloodborne pathogens exposure control plan (ECP) is provided to eliminate or minimize occupational exposure to bloodborne pathogens in accordance with OSHA standard 29 CFR 1910.1030, "Occupational Exposure to Bloodborne Pathogens" and RM50B.

The ECP is a key document to assist our Your Park in implementing and ensuring compliance with the standard, thereby protecting our employees. This ECP includes:

- Responsibilities and program evaluation requirements
- Determination of employee exposure
- Implementation of various methods of exposure control, including:
  - Universal precautions
  - Engineering and work practice controls
  - Personal protective equipment
  - Housekeeping
  - Regulated (biohazard) waste handling procedures
  - Labeling
- Hepatitis B vaccination
- Post-exposure evaluation and follow-up
- Employee information and training
- Recordkeeping

**1. Responsibilities.**

- a. John Hunter, EMS coordinator, is responsible for the implementation of the ECP and will maintain, review, and update the ECP at least annually, and whenever necessary to include new or modified tasks and procedures. Mr. Hunter may be contacted at (123) 234-6485.
- b. Employees who are determined to have occupational exposure to blood or other potentially infectious materials (OPIM) must comply with the procedures and work practices outlined in this ECP.

- c. The following individuals will maintain and provide all necessary personal protective equipment (PPE), engineering controls (e.g., sharps containers), labels, and red bags as required by the standard:
- 1) John Hunter, EMS coordinator, will ensure that adequate supplies of the aforementioned equipment is available for all health clinic and emergency services personnel in the appropriate sizes. Mr. Hunter may be contacted at the health clinic at Headquarters Building 101, (123) 234-6485.
  - 2) Susan Smith, Chief Maintenance Division, will ensure adequate supplies of the aforementioned equipment is available for all maintenance and interpretive staff in the appropriate sizes as required. Ms. Smith may be contacted at Building 202, Maintenance yard, (123) 234-7890.
- d. John Hunter will be responsible for ensuring that all medical actions required are performed and that appropriate employee health and OSHA records are maintained. Contact location/phone number (123) 234-5678.
- e. Edward Miller, Safety Officer, will be responsible for training, documentation of training, and making the written ECP available to employees, OSHA, and NIOSH representatives. Contact location/phone number: (123) 234-6485.

## 2. Determination of Employee Exposure

- a. The following is a list of all job classifications at Your Park in which *all* employees have occupational exposure:

GS-025	Park Ranger, Law Enforcement
GS-070	Correctional Officer
GS-081	Fire Fighter
GS-083	Police Officer
GS-085	Security Guard
GS-189	Recreation Aide/Technician (Lifeguard)
GS-610	Occupational Health Nurse
GS-1811	Criminal Investigator
SP-083	Park Police

- b. The following is a list of job classifications in which *some* employees at Your Park have occupational exposure. Included is a list of tasks and procedures, or groups of closely related tasks and procedures, in which occupational exposure may occur for these individuals:

GS-025	Park Ranger, Interpretation
GS-025	Park Ranger, Resource Management
	Park Volunteers

- c. The following tasks or closely related tasks may result in employee contact with blood or other potentially infectious material resulting in exposure to bloodborne pathogens.



- Drawing patient blood
- Handling patient solid waste, linen and other materials
- Examining patients, including contact with blood, body fluids and mucous membranes
- Intubation.
- Performing procedures that produce extensive spattering of blood or body fluids.
- Working with victims of accidents, violence, or illness.
- Cleaning up medical and rescue equipment after use.
- Restraining combative individuals.
- Providing first aid for injured individual (Designated First Responders).
- Examining criminal evidence contaminated with blood and body fluids.
- Handling regulated waste containing contaminated bandages, personal protection equipment and other supplies.
- Handling needles, sharps, or other waste that is considered regulated (biohazard) waste.

### 3. Exposure Control

a. *Universal Precautions.* All employees will utilize universal precautions.

b. *Engineering and Work Practice Controls*

- 1) Engineering and work practice controls will be used to prevent or minimize exposure to bloodborne pathogens.
- 2) Engineering controls will be examined, maintained, or replaced at least annually by the Park Emergency Medical Services Coordinator or at any time a defect or problem is suspected. The Park EMS Coordinator will periodically review tasks and other duties of employees, as well as procedures performed, to assess the need for engineering control updates. An inspection will be conducted annually prior to the Exposure Control Plan Review to examine:
  - i. Operations where engineering controls are currently employed.
  - ii. Operations where engineering controls can be updated/replaced.
  - iii. Operations currently in need of engineering controls.
- 3) Specific engineering controls and work practice controls that will be employed at Your Park are listed below:
  - i. Hand washing facilities (or antiseptic hand cleansers and towels, or antiseptic towelettes) that are readily accessible to all employees who have the potential for exposure.
  - ii. Containers for contaminated sharps that have the following characteristics:

1. Puncture-resistant

2. Color-coded or labeled with a biohazard warning label
3. Leak-proof on the sides and bottom
4. Sharps disposal containers are inspected and maintained or replaced by John Hunter or Susan Smith each quarter or whenever necessary to prevent overfilling.

iii. Specimen/evidence and secondary containers that are:

1. Leak-proof
2. Color-coded or labeled with a biohazard warning label
3. Puncture-resistant (when necessary)

- 4) Work Practice Controls. Work practice controls are established to ensure minimum exposure to Bloodborne pathogens. All supervisors, in conjunction with the Park EMS Coordinator, are responsible for overseeing the compliance with the work practice controls. The following work practice controls must be followed by all employees at GGNRA Bloodborne Pathogen Control Program:

i. Hand washing:

1. Hands should be washed with soap under running water for at least 10-15 seconds prior to providing health or medical care to any person whenever feasible.
2. Employees must wash their hands immediately, or as soon as possible, after removal of potentially contaminated disposable gloves or other personal protective equipment. If washing of the hands is not feasible, an antiseptic hand cleaner or waterless de-germers with clean paper towels, or antiseptic towelettes will be used until hand washing is possible.
3. Following any contact with blood or any other potentially infectious materials, employees must wash their hands and any other exposed skin with soap and water as soon as possible. Exposed mucous membranes must be flushed with water as soon as possible following contact.

ii. Sharps:

1. Contaminated needles and other contaminated sharps are not to be bent, sheared, broken, recapped, or removed (needles from syringes) unless there is a demonstrated need for this action (e.g., required by the medical procedure).
2. Contaminated evidence, sharps and/or specimens shall be placed in appropriate containers immediately, or as soon as possible, after use.
3. If outside contamination of a primary sharps container occurs, that container shall be placed within a second container, appropriately labeled for handling and storage. If the sharps can puncture the primary container, the

secondary container must be puncture resistant as well.

- iii. Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable risk of occupational exposure. The same is prohibited immediately after exposure until hands are washed.
- iv. Food, drink and medications must not be kept in refrigerators, freezers, shelves, cabinets, or on counter tops or bench tops where blood or other potential infectious materials are present.
- v. Mouth pipetting/suctioning of blood or other infectious materials is prohibited.
- vi. All procedures involving blood or other potentially infectious materials shall be performed to minimize splashing, spraying, spattering, and generation of droplets of the materials.
- vii. Contaminated evidence, specimens of blood, or other material shall be placed in designated leak-proof containers and appropriately labeled for handling and storage.
- viii. Equipment that becomes contaminated must be examined prior to servicing or shipping and decontaminated as necessary. If the equipment cannot be decontaminated, then an appropriate biohazard warning label must be attached to any contaminated equipment, identifying the contaminated portions. Information regarding the remaining contamination shall be conveyed to all affected employees, the equipment service representative, and/or the equipment manufacturer prior to handling, servicing, or shipping. Equipment that cannot be decontaminated should be listed in park SOP's and included in the Hazard Communication program.
- ix. All at-risk park employees shall be trained regarding any work practice controls with which they are unfamiliar or not experienced.
- x. All contaminated trash shall be considered as regulated or biohazard waste and disposed of as prescribed in accordance with applicable Federal, State, and local regulations.

*c. Personal Protection Equipment.*

- 1) Personal protective equipment will be provided, at no cost to the employee, in order to eliminate or minimize bloodborne pathogen hazards.
- 2) All work areas, including emergency response vehicles, shall be equipped with required personal protective equipment of appropriate size, quantity, and quality.

- 3) To insure that PPE is not contaminated, and is in the proper condition, the following practices shall be adhered to:
  - i. All appropriate PPE is inspected by the responsible employee each day and repaired or replaced as needed to maintain its effectiveness.
  - ii. Reusable PPE is cleaned, laundered, and decontaminated as needed.
  - iii. Single-use PPE (or equipment that cannot, for whatever reason, be decontaminated) is disposed of as prescribed in this Plan for biohazard material disposal.
- 4) All potentially contaminated personal protective equipment is to be removed prior to leaving a work area or accident/incident site if possible, or as soon as practical.
- 5) Employees must receive training in the use and care of appropriate personal protective equipment. Personal protective equipment shall be used as required unless the use of the protective equipment will prevent the delivery of health care, public safety services, or pose an increase safety hazard.
- 6) This equipment includes, but is not limited to:
  - i. Gloves
    1. Gloves are worn whenever employees anticipate hand contact with potentially infectious materials. They are worn when handling or touching contaminated items or surfaces.
    2. Hypoallergenic gloves, glove liners, and similar alternatives are readily available to employees who are allergic to the gloves normally provided. Gloves must be of appropriate material, latex or vinyl, and of appropriate size for each employee.
    3. Gloves should be changed with each new patient, or if torn, punctured, or any loss of effectiveness as an exposure barrier.
    4. Utility gloves must be decontaminated for reuse unless they are cracked, peeling, torn, or exhibit other signs of deterioration, at which time they must be disposed of.
  - iv. Face Masks, Eye Protection, and Face Shields. Masks, eye protection, or face shields shall be worn whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, mouth contamination can be reasonably anticipated.

- v. Gowns. Gowns, aprons, and other protective body clothing shall be worn whenever potential exposure to the body is anticipated. Any garments penetrated by blood or other infectious materials are removed immediately, or as soon as practical. Contaminated protective clothing will be disposed of as biohazard waste.
- vi. Resuscitation Equipment. Whenever practical, resuscitation (CPR) masks should be used.

d. Housekeeping. Equipment and facilities in a clean and sanitary condition is an important part of the compliance of the Exposure Control Plan. To help ensure a clean environment, the following practices shall be employed:

- i. All equipment and surfaces must be cleaned and decontaminated after contact with blood or other potentially infectious material:
  - 1. After the completion of an examination of contaminated evidence.
  - 2. Immediately, or as soon as feasible, after surfaces are overtly contaminated.
  - 3. After a spill of blood or infectious materials.
  - 4. At the end of the work shift if the surface may have been contaminated during that shift.
  - 5. Protective coverings (such as linens, plastic trash bags or wrap, aluminum foil, or absorbent paper) must be removed and replaced as soon as possible when overtly contaminated or at the end of the work shift if they may have been contaminated during the shift.
- ii. All trash containers, pails, bins, and other receptacles intended for use must be routinely inspected, cleaned, and decontaminated as soon as possible if visibly contaminated.
- iii. All reusable emergency service equipment, such as resuscitation devices that have contacted the skin or mucous membranes, should be soaked in an appropriate commercial disinfecting product, which meets Environmental Protection Agency (EPA) requirements. Equipment surfaces (ambulance floors, walls, tables, gurneys, stretchers, MAST suits, backboards, etc.) that cannot be soaked must have a thorough physical cleaning that includes removal of any contaminated products.
- iv. Broken glassware that may be contaminated must be picked up using mechanical means (such as broom and dustpan, tongs, forceps), but not by hand.

e. Laundry

- i. Employees shall remove any clothing that becomes contaminated. Clothing grossly contaminated with blood or other potentially

infectious material will not be taken home for cleaning. This clothing will be discarded as contaminated waste material and replaced by the employer through normal procedures.

1. Employees can decontaminate clothing lightly contaminated by washing (hot water, detergent, and a small amount of bleach) or by professional dry cleaning (point out the contaminated area to the dry cleaner).
2. All contaminated linen and clothing shipped to any facility shall be placed in water-impervious bags and clearly labeled or color-coded with biohazard warnings
3. The following contaminated articles will be laundered by this company: Acme Cleaners, 101 Main Street, Downtown, PA (list)
4. All other laundering will be performed by Jim Parker at the Maintenance facility laundry on Monday a.m
5. The following laundering requirements must be met:
  - a. handle contaminated laundry as little as possible, with minimal agitation
  - b. place wet contaminated laundry in leak-proof, labeled or color-coded containers before transport. Use (*red bags or bags marked with biohazard symbol*) for this purpose. wear the following PPE when handling and/or sorting contaminated laundry:
    1. nitrile gloves
    - 2.

ii. Cleaning blood and/or body fluid spills:

- 1) For blood or other potentially infectious material, use an absorbent barrier to contain the spill.
- 2) Collect absorbent materials using items such as a dustpan and tongs. Do not pick up items by hand. All soiled materials are to be placed in a puncture-resistant and leak-proof container.
- 3) Once body fluids have been removed from the area, wash area thoroughly with water.
- 4) Rinse with a 10 percent chlorine bleach and water solution.
- 5) Rinse a second time with water.

f. Regulated (Biohazard) Waste Management Procedures.

- i. Contaminated items will be disposed of in containers specifically manufactured, labeled, and approved for biohazard material as described below. The containers must then be disposed of according to in accordance with applicable Federal, State, and local regulations.

- ii. Contaminated materials can include but are not limited to: used needles, soiled scalpels, disposable resuscitators, intubation equipment, used bandages, disposed personal protective equipment, and other potentially infectious materials.
  - iii. Contaminated materials must be discarded in containers that are:
    - 1) Closeable
    - 2) Puncture-resistant, if discarded materials have the potential to penetrate the container
    - 3) Leak-proof, if the potential for fluid spill or leakage exists
    - 4) Red in color or labeled with the appropriate biohazard warning label
    - 5) Containers for regulated waste must be placed in appropriate locations in emergency response vehicles and facilities within easy access of employees and as close as possible to the source of the waste.

g. Program Review. Your Park identifies the need for changes in engineering control and work practices through Review of OSHA records, employee interviews, committee activities. New procedures or new products will be evaluated during regular safety committee meetings. Employees are encouraged to provide supervisors or safety committee members suggestions for improved engineering and work practice controls.

h. Labels. Supervisors will ensure warning labels are affixed or red bags are used as required if regulated waste or contaminated equipment is brought into the facility. Employees are to notify John Hunter, EMS Coordinator at (123) 234-5678 or Edward Miller, Safety Officer, at (123) 234-6485 if they discover regulated waste containers, refrigerators containing blood or OPIM, contaminated equipment, etc. without proper labels.

#### 4. Hepatitis B Vaccination

- a. Edward Miller, Safety Officer, will provide training to employees on hepatitis B vaccinations, addressing the safety, benefits, efficacy, methods of administration, and availability.
- b. The hepatitis B vaccination series is available at no cost after training and within 10 days of initial assignment to employees identified in the exposure determination section of this plan. Vaccination is encouraged unless: 1) documentation exists that the employee has previously received the series, 2) antibody testing reveals that the employee is immune, or 3) medical evaluation shows that vaccination is contraindicated. However, if an employee chooses to decline vaccination, the employee must sign a declination form. Employees who decline may request and obtain the vaccination at a later date at no cost. Documentation of refusal of the vaccination is kept with the employee's medical records in the personnel office.
- c. Vaccination will be provided by Federal Occupational Health (FOH) at the Main Street clinic.

- d. Following the medical evaluation, a copy of the health care professional's Written Opinion will be obtained and provided to the employee. It will be limited to whether the employee requires the hepatitis vaccine, and whether the vaccine was administered.

5. Post-Exposure Evaluation and Follow-Up.

- a. Should an exposure incident occur, contact your supervisor and John Hunter, EMS Coordinator, at (123)234-5678.
- b. An immediately available confidential medical evaluation and follow-up will be conducted by FOH at the Main Street clinic.
- c. Following the initial first aid (clean the wound, flush eyes or other mucous membrane, etc.), the following activities will be performed:
  - i. Document the routes of exposure and how the exposure occurred.
  - ii. Identify and document the source individual (unless the employer can establish that identification is infeasible or prohibited by state or local law).
  - iii. Obtain consent and make arrangements to have the source individual tested as soon as possible to determine HIV, HCV, and HBV infectivity; document that the source individual's test results were conveyed to the employee's health care provider.
  - iv. If the source individual is already known to be HIV, HCV and/or HBV positive, new testing need not be performed.
  - v. Assure that the exposed employee is provided with the source individual's test results and with information about applicable disclosure laws and regulations concerning the identity and infectious status of the source individual (e.g., laws protecting confidentiality).
  - vi. After obtaining consent, collect exposed employee's blood as soon as feasible after exposure incident, and test blood for HBV and HIV serological status
  - vii. If the employee does not give consent for HIV serological testing during collection of blood for baseline testing, preserve the baseline blood sample for at least 90 days; if the exposed employee elects to have the baseline sample tested during this waiting period, perform testing as soon as feasible.
- d. Administration of Post-Exposure Evaluation and follow-up.
  - i. John Hunter, EMS Coordinator will ensure that health care professional(s) responsible for employee's hepatitis B vaccination and post-exposure evaluation and follow-up are given a copy of OSHA's bloodborne pathogens standard.
    - 1) The exposed employee's supervisor will collect the following information and provide it to Mr. Hunter who will ensure that it is provided to the health care professional evaluating an employee after an exposure incident:



- a. a description of the employee's job duties relevant to the exposure incident
- b. route(s) of exposure circumstances of exposure
- c. if possible, results of the source individual's blood test relevant employee medical records, including vaccination status
- d. Within 15 days following the evaluation, Mr. Hunter will provide the employee with a copy of the evaluating health care professional's written.

e. Exposure Incident Evaluation Procedures.

i. The employee's supervisor and Mr. Hunter, will review the circumstances of all exposure incidents to determine:

- 1) engineering controls in use at the time
- 2) work practices followed
- 3) a description of the device being used (including type and brand)
- 4) protective equipment or clothing that was used at the time of the exposure incident (*gloves, eye shields, etc.*)
- 5) location of the incident (*O.R., E.R., patient room, etc.*)
- 6) procedure being performed when the incident occurred
- 7) employee's training

i. Edward Miller, Safety Officer will record all percutaneous injuries from contaminated sharps in the Sharps Injury Log.

ii. If it is determined that revisions need to be made, Mr. Hunter will ensure that appropriate changes are made to this ECP. (*Changes may include an evaluation of safer devices, adding employees to the exposure determination list, etc.*)

6. Employee Information and Training

- a. Employees covered by the bloodborne pathogens standard receive an explanation of this ECP during their initial training session. It will also be reviewed in their annual refresher training. All employees will have an opportunity to review this plan at any time during their work shifts by contacting their supervisor. Copies will be provided on request.
- b. All employees who have occupational exposure to bloodborne pathogens receive training conducted by *Edward Hunter, Safety Officer. Mr. Hunter has completed the FOH Bloodborne Pathogens train the trainer course.*
- c. All employees who have occupational exposure to bloodborne pathogens will receive training on the epidemiology, symptoms, and transmission of bloodborne pathogen diseases. In addition, the training program covers, at a minimum, the following elements:

- i. a copy and explanation of the standard
  - ii. an explanation of our ECP and how to obtain a copy
  - iii. an explanation of methods to recognize tasks and other activities that may involve exposure to blood and OPIM, including what constitutes an exposure incident
  - iv. an explanation of the use and limitations of engineering controls, work practices, and PPE
  - v. an explanation of the types, uses, location, removal, handling, decontamination, and disposal of PPE
  - vi. an explanation of the basis for PPE selection
  - vii. information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine will be offered free of charge
  - viii. information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM
  - ix. an explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available
  - x. information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident
  - xi. an explanation of the signs and labels and/or color coding required by the standard and used at this facility
  - xii. an opportunity for interactive questions and answers with the person conducting the training session.
- d. Training materials for this facility are available at the Safety Office.

## 7. Recordkeeping

### a. Training Records.

- i. Training records are completed for each employee upon completion of training. These documents will be kept for at least three years at the Safety Office. The training records will include:
  - 1) the dates of the training sessions
  - 2) the contents or a summary of the training sessions
  - 3) the names and qualifications of persons conducting the training
  - 4) the names and job titles of all persons attending the training sessions
- ii. Employee training records are provided upon request to the employee or the employee's authorized representative within 15 working days. Such requests should be addressed to the safety officer.

### b. Medical Records

- iii. Medical records are maintained for each employee with occupational exposure in accordance with 29 CFR 1910.1020, "Access to Employee Exposure and Medical Records."

- iv. The personnel office is responsible for maintenance of the required medical records. These **confidential** records are kept at the personnel office for at least the duration of employment plus 30 years.
- v. Employee medical records are provided upon request of the employee or to anyone having written consent of the employee within 15 working days. Such requests should be sent to Your Park Personnel Office.

c. OSHA Recordkeeping

- vi. An exposure incident is evaluated to determine if the case meets OSHA's Recordkeeping Requirements (29 CFR 1904). This determination and the recording activities are done by the Safety Officer.
- vii. Sharps Injury Log.
  - 1) In addition to the 1904 Recordkeeping Requirements, all percutaneous injuries from contaminated sharps are also recorded in the Sharps Injury Log. All incidences must include at least:
    - a. the date of the injury
    - b. the type and brand of the device involved
    - c. the department or work area where the incident occurred
    - d. an explanation of how the incident occurred.
  - 2) This log is reviewed at least annually as part of the annual evaluation of the program and is maintained for at least five years following the end of the calendar year that they cover. If a copy is requested by anyone, it must have any personal identifiers removed from the report.

## **Appendix C: Special Guidance for Determining Occupational Exposure**

### **Housekeepers, Custodians, Janitors**

Individuals who perform housekeeping duties, particularly in patient care and laboratory areas, may be at increased risk for exposure when they perform tasks such as cleaning blood spills and handling infectious wastes. However, OSHA does not generally consider maintenance personnel and janitorial staff employed in non-health care facilities to have occupational exposure. Still each park must determine which job classifications or specific tasks and procedures involve occupational exposure.

For example, OSHA expects products such as discarded sanitary napkins, to be discarded into waste containers which are lined in such a way as to prevent contact with the contents. But at the same time, the employer must determine if employees can come into contact with blood during the normal handling of such products from initial pick-up through disposal in the outgoing trash. OSHA does not generally consider discarded feminine hygiene products, used to absorb menstrual flow, to fall within the definition of regulated waste. The intended function of products such as sanitary napkins is to absorb and contain blood; the absorbent material of which they are composed would, under most circumstances, prevent the release of liquid or semi-liquid blood or the flaking off of dried blood. OSHA expects these products to be discarded into waste containers which are lined in such a way as to prevent contact with the contents.

All park personnel who may come into contact with potentially contaminated laundry or trash bags must use extreme caution. Pickup the bag from the top to carry. Do not place your hands on the bottom of the bag because of the potential for discarded needles or syringes piercing the bag.

In other words, custodial workers cleaning rest rooms would not be considered occupationally exposed under normal or routine circumstances. Please note, however, that parks must determine on a case by case basis whether their employees can come into contact with blood during the normal handling of such products from initial pick-up through disposal in the outgoing trash.

### **Maintenance Workers/Plumbers**

Trades such as plumbers, pipe fitters and others who may at times be engaged in maintenance activities are not generally considered to have occupational exposure as defined by the OSHA BBP standard. Although contact with raw sewage, such as during the accidental rupture of a sewage line (not originating directly from a health care facility) poses a number of health hazards, these hazards are not related to blood-borne pathogens and so this exposure is not regulated under the BBP standard.

Still, the parks must determine which job classifications or specific tasks and procedures may place employees at risk. For example, plumbers performing repairs on pipes or drains in laboratories, operating rooms, or mortuaries may have occupational exposure to blood or other potentially infectious materials.

**Appendix D: Employee Exposure Determination Worksheet**

- a. The following is a list of all job classifications at \_\_\_\_\_ Park in which *all* employees have occupational exposure:

<i>Example: GS-025</i>	Park Ranger, Law Enforcement

- b. The following is a list of job classifications in which *some* employees at \_\_\_\_\_ Park have occupational exposure:

<i>Example: GS-025</i>	Park Ranger, Interpretation

- c. List of tasks and procedures, or groups of closely related tasks and procedures, in which occupational exposure may occur for the employees listed in Part B above:

- *Example:* Handling needles, sharps, or other waste that are considered regulated (biohazard) waste.

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## **Appendix E: HBV Vaccine Record and Declination Form**

## HEPATITIS B VACCINATION RECORD

### EMPLOYEE INFORMATION

Please Print

NAME: \_\_\_\_\_  
LAST FIRST MIDDLE LAST NAME (at birth)

☐ MALE    ☐ FEMALE

SOCIAL SECURITY NUMBER.

PLACE OF BIRTH: \_\_\_\_\_  
CITY STATE COUNTRY DATE OF BIRTH

AGENCY: \_\_\_\_\_ WORK LOCATION: \_\_\_\_\_

PHONE #: \_\_\_\_\_

### Patient Acknowledgement of Hepatitis B Information

Acceptance and receipt of the hepatitis B vaccine is acknowledgement that I have read the information about Hepatitis B and the Hepatitis B vaccine. I have had the opportunity to ask questions and understand the benefits and risks of this immunization. I understand that all 3 doses are required for the optimum immune response. However, as with all medical treatment, I also understand there is no guarantee that I will become immune or that I will not experience adverse side effects from the vaccine.

VACCINATION RECORD	DATE	HEALTH CARE PROVIDER SIGNATURE	SITE	DRUG MFR & LOT NUMBER	DATE EXP.
1 <sup>st</sup> Dose					
2 <sup>nd</sup> Dose-1 month after 1 <sup>st</sup>					
3 <sup>rd</sup> Dose-6 months after 1 <sup>st</sup>					
4th Dose (only if prescribed by health care provider)					
5 th Dose (only if prescribed by health care provider)					
6 th Dose (only if prescribed by health care provider)					

HEALTH CARE PROVIDER ADDRESS, PHONE &amp; FAX:

(If vaccine provided for post-exposure follow up) **Mail or fax this form to:**

FOH-27 Rev. 5/02

## DECLINATION FORM

NO, I do not want HEPATITIS B VACCINATION

**EMPLOYEE INFORMATION**

Please Print

NAME: \_\_\_\_\_  
LAST FIRST MIDDLE LAST NAME (at birth)☐ MALE ☐ FEMALE

SOCIAL SECURITY NUMBER \_\_\_\_\_

PLACE OF BIRTH: \_\_\_\_\_  
CITY STATE COUNTRY DATE OF BIRTHAGENCY: \_\_\_\_\_ WORK LOCATION: \_\_\_\_\_  
CITY STATE

PHONE #: \_\_\_\_\_

**HEPATITIS B VACCINATION DECLINATION**

I understand that, due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no cost to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I may continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no cost to me.

EMPLOYEE SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

## THE NEXT THREE ITEMS ARE OPTIONAL:

- ☐ I have previously received hepatitis B vaccination(s)  
(last shot completed ☐ 1, ☐ 2, ☐ 3 and date \_\_\_\_\_)
- ☐ I have already had hepatitis B disease (previously called serum hepatitis).

OTHER REASON: \_\_\_\_\_

**(If Vaccine declined for post-exposure follow up)**  
Mail or fax this form to:

FOH-27 Rev. 5/02



**Appendix F: Disinfection Methods/Compounds**

Disinfectants must have EPA registration as a sterilant (representing the highest level of anti-microbial activity that destroys all viruses), tuberculocidal disinfectants (effective against tuberculosis bacteria and specific viruses named on the product label as well as HIV/HBV efficacy claims). All disinfectants must be applied in accordance with the manufacturer's label instructions.

Diluted Household Bleach (½cup per gallon of water 5.25% Sodium Hypochlorite) is the disinfection method of choice. Fresh solutions of diluted household bleach must be made up daily (every 24 hours). Household bleach is considered appropriate for disinfection of environmental surfaces and for decontamination of sites following initial cleanup (i.e. wiping up spills of blood or other contaminated materials). Contact time for bleach is generally considered to be the time it takes for the product to air dry. Solutions of bleach should not be stored in glass containers, but in material such as plastic. Bleach may cause damage to some medical instruments and tools so care must be taken. Gross contamination should first be washed with a soap and water solution, to ensure that the disinfectant is completely effective.

Iodine and quaternary ammonia products registered by the EPA can be used as substitutes for household bleach if registered on the label for the virus or bacteria of concern and only if the manufacturer's instructions for use are strictly adhered to.

More information on anti-microbial materials may be found on the following EPA web site:

<http://www.epa.gov/oppad001/>

**Appendix G: Guidelines for Pre-Exposure Administration of HBV Vaccination**

Authority: 29 CFR 1910.1030 mandates that Hepatitis B vaccination will be made available to **all park employees who have occupational exposure**.

- The vaccine will be provided *within 10 working days of assignment*, at a reasonable time and place, at no cost to the employee (including travel expenses).
- It will be performed by or under the supervision of a *licensed physician or other licensed health care professional* whose scope of practice allows him or her to independently perform those activities (e.g., nurse practitioner). All vaccinations must be administered according to the recommendations of the U.S. Public Health Service.
- The only exception to providing vaccination would be
  - A. if the park employee has previously received the complete Hepatitis B" vaccination series,
  - B. antibody testing reveals that the employee is immune, or
  - C. medical reasons prohibit the employee from taking the vaccine.
- Any park employee who chooses not to receive the Hepatitis B"vaccination series must complete and sign the Declination Form provided in Appendix \_\_\_\_ of your participant guide. However, if this individual changes his/her mind at a later date, he or she will still be able to receive the HBV vaccination series.
- If the vaccination series is interrupted after the first dose, the second dose should be administered as soon as possible. The second and third doses should be separated by at least 2 months. If only the third dose is delayed, it should be administered when convenient.

**Special Guidance for HBV Vaccine and First Aid Providers**

OSHA has provided an exception in its enforcement policy ([CPL 2-2.69] *Enforcement Procedures for the Occupational Exposure to Blood-borne Pathogens*) relating to Hepatitis B vaccination. Under this guidance, the park would not be cited if they have not offered the Hepatitis B vaccination series to an employee whose only exposure to blood would be responding to injuries resulting from workplace incidents as long as this is only a collateral duty of the employee and certain other requirements have been met. Members of your AED Team will also fall under this category if the same conditions exist.

For this exception to be allowed, the first aid rendered must be rendered only as a collateral duty, responding solely to injuries resulting from workplace incidents, and generally at the location where the incident occurs.

NOTE: This exception does not apply to designated first aid providers who render assistance on a regular basis, for example, at a first aid station, clinic, dispensary or other location where injured employees routinely go for assistance; nor does it apply to

any healthcare, emergency, or public safety personnel who are expected to render first aid in the course of their work. These employees must be offered the vaccine prior to exposure.

The park's exposure control plan must specifically address the provision of the Hepatitis B vaccine to all unvaccinated first aid providers who render assistance in any situation involving the presence of blood or OPIM. The plan must include:

- ❑ Provision for a reporting procedure that ensures that all first aid incidents involving the presence of blood or OPIM will be reported before the end of the work shift during which the incident occurred. The report must include the names of all first aid providers who rendered assistance, regardless of whether personal protective equipment was used and must describe the first aid incident, including time and date. The description must include a determination of whether or not, in addition to the presence of blood or other potentially infectious materials, an "exposure incident," as defined by the standard, occurred. This determination is necessary in order to ensure that the proper post-exposure evaluation, prophylaxis, and follow-up procedures are made available immediately, whenever there has been an "exposure incident" as defined by the standard.
- ❑ A report that lists all such first aid incidents and is readily available, upon request, to all employees and to the Assistant Secretary.
- ❑ Provision for the blood-borne pathogens training program for designated first aid providers to include the specifics of this reporting procedure.

Provision for the full Hepatitis B vaccination series to be made available as soon as possible, but in no event later than 24 hours, to all unvaccinated first aid providers who have rendered assistance in any situation involving the presence of blood or OPIM, regardless of whether or not a specific exposure incident, as defined by the standard, has occurred.

**Appendix H: Exposure Incident Reporting Requirements**

The Exposure Incident Report contains the results of the exposure incident evaluation along with the following information:

- date and time of exposure;
- details of the procedure being performed, including where and how the exposure occurred; if related to a sharp device, the type and brand of device and how and when in the course of handling the device the exposure occurred;
- details of the exposure, including the type and amount of fluid or material and the severity of the exposure. For example, for a percutaneous (through the skin) exposure, depth of injury and whether fluid was injected; for a skin or mucous membrane exposure, the estimated volume of material and the condition of the skin (chapped, abraded, intact);
- details about the exposure source. For example, whether the source material contained HBV, HCV, or HIV. If the source is HIV-infected, the stage of disease, history of antiretroviral therapy, viral load, and antiretroviral resistance information, if known;
- details about the exposed person. For example, the status of hepatitis B vaccination and vaccine-response status; and
- details about counseling, post exposure management and follow-up.

The case must be entered on the OSHA 300 Log as an injury. To protect the employee's privacy, you may not enter the employee's name on the OSHA 300 Log, but will maintain a Sharps Injury Log." The sharps injury log must contain, at a minimum:

- ☐ the type and brand of device involved in the incident,
- ☐ the department or work area where the exposure incident occurred, and
- ☐ an explanation of how the incident occurred.

The classification of the case must be updated on the OSHA Log if the case results in death, days away from work, restricted work, or job transfer. You must also update the description to identify the infectious disease and change the classification of the case from an injury to an illness.

**Physician-Supplied Information.**

Post-exposure evaluation and follow-up are to be provided to the employee consistent with the requirements outlined in 29 CFR 1910.1030 (Bloodborne Pathogen Standard). The park is required to obtain a written opinion from the Health Care Facility concerning the exposure incident and provide that opinion to the employee within 15 working days of completion of the original evaluation.

Employer access to the physician's written opinion is specifically allowed under the standard. However, the treatment facility's written opinion must be limited to very specific information regarding the employee's Hepatitis B vaccination status, including indication for such vaccine and whether such vaccine was administered (i.e., first shot had been given).

**Appendix I: Helpful Resources****OSHA. Blood-Borne Pathogens and Needle Stick Prevention Site**

<http://www.osha.gov/SLTC/bloodbornepathogens/index.html>

**NIOSH Bloodborne Infectious DiseasesHIV/AIDS, Hepatitis B Virus, and Hepatitis C Virus**

<http://www.cdc.gov/niosh/topics/bbp/>

**NPS Risk Management**

<http://www.nps.gov/riskmgmt/>

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